

Title (en)

Process for detecting scale formation in a beverage preparation machine

Title (de)

Verfahren zur Erkennung von Kesselsteinbildung bei einer Getränkeherstellungsmaschine

Title (fr)

Procédé de détection de la formation de calcaire dans une machine de préparation de boissons

Publication

EP 2273117 B1 20130814 (EN)

Application

EP 10164493 A 20100531

Priority

- EP 09161808 A 20090603
- EP 10164493 A 20100531

Abstract (en)

[origin: EP2273117A1] The invention concerns a process for detecting scale deposit in the liquid supply means (10) of a water pump driven machine comprising at least a water tank (1), a pump (3) and a heating means (4), where water is pumped from the water tank and fed to the heating means, and where the pump is energized by a controller (5) by providing the pump with an energizing signal (8) to provide an intended water flow rate F, wherein the actual water flow rate f (7) is measured and the discrepancy # between the actual water flow rate f and the intended water flow rate F is directly and/or indirectly compared to an operating instruction related to scale deposit.

IPC 8 full level

F04B 17/04 (2006.01); **F04B 49/06** (2006.01)

CPC (source: EP US)

F04B 17/04 (2013.01 - EP US); **F04B 17/044** (2013.01 - EP US); **F04B 49/065** (2013.01 - EP US); **Y10T 137/0318** (2015.04 - EP US)

Cited by

EP2946702A1; AU2015263765B2; RU2683194C2; US10463189B2; WO2015176191A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)

EP 2273117 A1 20110112; **EP 2273117 B1 20130814**; CA 2706273 A1 20101203; CN 101947064 A 20110119; DK 2273117 T3 20131007; ES 2432159 T3 20131202; JP 2011015953 A 20110127; PL 2273117 T3 20140131; PT 2273117 E 20131004; US 2011132925 A1 20110609; US 8344896 B2 20130101

DOCDB simple family (application)

EP 10164493 A 20100531; CA 2706273 A 20100602; CN 201010265275 A 20100603; DK 10164493 T 20100531; ES 10164493 T 20100531; JP 2010128101 A 20100603; PL 10164493 T 20100531; PT 10164493 T 20100531; US 79203910 A 20100602